

Response and Provisional Election

**IN THE UNITED STATES PATENT
AND TRADEMARK OFFICE**

Patent Application

Inventors: Paul L. Master et al.

Examiner: Pan, Daniel H.

Serial No.: 09/997,530

Group Art Unit: 2183

Docket No.: QuickSilver Technology QST.002

Filed: November 30, 2001

10 **Entitled:** Apparatus, System and Method for Configuration of Adaptive Integrated
Circuitry Having Fixed, Application Specific Computational Elements

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June 20, 2005

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RESPONSE AND PROVISIONAL ELECTION UNDER 37 CFR 1.143

Honorable Commissioner of
Patents and Trademarks
25 Alexandria, VA 22313-1450

Sir:

30 In response to the restriction requirement in the Office Action mailed
March 21, 2005, Applicants hereby respectfully submit the following Response and
Provisional Election under 37 CFR 1.143.

In the event of non-payment or improper payment of any required fee, the
Commissioner is authorized to charge or to credit Deposit Account No. 501,262 as may
be required to correct the error.

PROVISIONAL ELECTION UNDER 37 CFR 1.143

Applicants provisionally elect, with traverse, claims 1 – 31, inclusive

5 (Group I).

RESPONSE UNDER 37 CFR 1.143:

10 In the Office Action, the Examiner restricted a single invention into seven purportedly independent inventions. Applicants respectfully traverse this restriction, for the reasons stated in detail below.

First, this restriction is inconsistent with the Examiner's actions in the related and allowed U.S. Application Serial No. 09/815,122, issued as U.S. Patent No. 6,836,839, which contains many of the apparatus claims for this same technology. Many
15 of the claims in the pending application are related to the issued claims, many with virtually identical claim language, plus the addition of configuration information, to create the system embodiments claimed in the pending application. In addition, claims to the configuration information (as a form of software) were already filed as a separate application, U.S. Application Serial No. 09/997,987.

20 Second, this restriction is inconsistent with the International Search Report for the related PCT application PCT/US02/37014, issued April 4, 2003 and submitted to the USPTO on May 8, 2003, which found unity of invention and clear ability to search all claims as one invention. In addition, the International Preliminary Examination Report for the related PCT application PCT/US02/37014, issued 21 August 2003 and submitted
25 herewith, found allowable all 100 pending claims.

Third, the seven groups of claims are not independent or distinct under MPEP 802.01. The various sets of claims are not capable of separate manufacture, use or sale; and one set of claims would not be separately patentable over the other. The sets of claims are not independent or distinct, but are all related, as follows:

30 1. Group I, claims 1-31, are for a system embodiment comprising configuration information, heterogeneous computational elements, and an interconnection network.

2. Group II, claims 32-62, are for the method of operating the system of claims 1-31, in which the system is receiving the configuration information, and the interconnection network then configures the heterogeneous computational elements accordingly. In the event of restriction, this set of claims would be re-included in the application under the doctrine of rejoinder. As claimed, *these method claims are only capable of operating with the system of claims 1-31*, are the gerund form of Group I for configuration information being received (such as from an on-chip memory), and are not independent of Group I. As a consequence, these claims are to be included and are not allowed to be restricted pursuant to MPEP 806.05(e). The mere assertion that these Groups I and II are separately useable is insufficient and erroneous. The UPSTO, therefore, has not met its burden to prove that this group is independent or distinct under MPEP 803 (Office Action Point 2).

3. Group III, claims 63-88, are for the method of operating the system of claims 1-31, in which the configuration information has been transmitted, and when the system has received the configuration information, following claims 32-62, the interconnection network then configures the heterogeneous computational elements accordingly. In the event of restriction, this set of claims also would be re-included in the application under the doctrine of rejoinder. As claimed, *these method claims are only capable of operating with the system of claims 1-31 and the method of claims 32-62*, are the gerund form of Group I for configuration information being transmitted (such as from an on-chip memory), and are not independent of Group I. As a consequence, these claims are to be included and are not allowed to be restricted pursuant to MPEP 806.05(e). The mere assertion that these Groups I and III are separately useable is insufficient and erroneous. UPSTO, therefore, has not met its burden to prove that this group is independent or distinct under MPEP 803 (Office Action Points 3 and 8).

4. Group IV, claims 89-90, are drawn to a plurality of what is claimed in Group I claims 1 -31 (reflected in Figure 4), at a higher level of description (reflected in Figure 3, which includes a plurality of what is disclosed in Figure 4 and claimed in Group I). More specifically, claim 89 claims a plurality of configuration information of claim 1, a plurality of matrices comprised of the computational elements of claim 1, and a higher-level matrix interconnection network of claim 1. As a consequence, these claims are

different definitions of the same disclosed subject matter, and these claims are to be included and are not allowed to be restricted pursuant to MPEP 806.03. Again, the mere assertion that these Groups I and IV are separately useable is insufficient and erroneous. The UPSTO, therefore, has not met its burden to prove that this group is independent or
 5 distinct under MPEP 803 (Office Action Points 4, 9 and 13).

5. The remaining groups are all variations of claims 1-31, having different scopes:

(a) Group V, claims 91-92, includes the elements of claim 1, with the addition of the elements from dependent claims 7 and 20 – 22. As such, these claims are
 10 not independent inventions from claims 1 -31, and merely differ in claimed scope. As related inventions, restriction is never proper, MPEP 808.2. Again, the mere assertion that these Groups I and V are separately useable is insufficient and erroneous. The UPSTO, therefore, has not met its burden to prove that this group is independent or distinct under MPEP 803 (Office Action Points 5, 10, 14 and 17).

(b) Group VI, claim 93, includes the elements of claim 1, with a more
 15 detailed specification of architectures and functional modes from dependent claims 14 and 15. As such, these claims are not independent inventions from claims 1 -31. Also as related inventions, restriction is never proper, MPEP 808.2. Again, the mere assertion that these Groups I and VI are separately useable is insufficient and erroneous. The
 20 UPSTO, therefore, has not met its burden to prove that this group is independent or distinct under MPEP 803 (Office Action Points 6, 11, 15, 18 and 20).

(c) Group VII, claims 94-100, also tracks claim 1, and includes the same basic elements of claim 1, namely, configuration information, a plurality of
 25 computational elements, and an interconnection network. As such, these claims are not independent inventions from claims 1 -31. As a consequence, these claims are different definitions of the same disclosed subject matter, and these claims are to be included and are not allowed to be restricted pursuant to MPEP 806.03. Again, the mere assertion that these Groups I and VII are separately useable is insufficient and erroneous. The UPSTO, therefore, has not met its burden to prove that this group is independent or distinct under
 30 MPEP 803 (Office Action Points 7, 12, 16, 19, 21 and 22).

The USPTO has not met its burden to show that these various claims are for independent and distinct inventions (Office Action Point 24).

In addition, the USPTO has not demonstrated that these claims would require different searches; indeed, the Examiner searched the related application as a single invention (U.S. Patent No. 6,836,839), and the PCT was also able to perform a search as a unitary invention, thereby disproving the unsupported assertions of Office Action Points 1 and 24.

Attention is also drawn the failure of the USPTO to follow the required procedures of MPEP 812.01, as the USPTO failed to telephone and discuss this matter with the undersigned counsel in advance of issuing the restriction. Had the USPTO followed its own procedures, significant time and effort of all parties could have been saved. For example, we would have pointed out the error in the assertion that claims 32-62 are drawn to a method of receiving, because the remainder of the claims should have been read and directly compared with claims 1-31, rather than selectively quoted, not considered as a whole, and misclassified. The same is true for the other purported groups discussed above. In addition, the relationships among the groups of claims would also have been explained.

The UPSTO has not met its burden to prove that these purported groups of claims are independent or distinct under MPEP 803 (Office Action Point 2). As a consequence, restriction is improper.

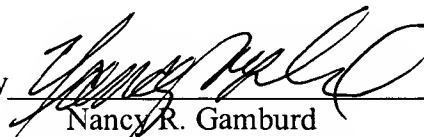
On the basis of the above remarks, reconsideration of the restriction is believed to be warranted, and an early action toward that end is respectfully solicited. In addition, for any issues or concerns, the Examiner is invited to call the attorney for the applicant at the telephone number provided below.

Respectfully submitted,

Paul L. Master et al.

June 20, 2005

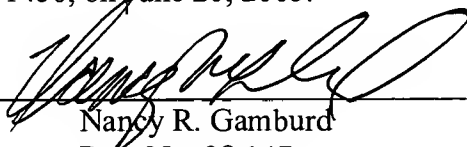
By



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CERTIFICATE OF MAILING

I hereby certify that the foregoing Response And Provisional Election
Under 37 CFR 1.143, Transmittal (PTO/SB/21), Fee Transmittal (PTO/SB/17) (original
5 and one copy), Petition For Extension Of Time (original and one copy), Check No. 1008
(in the amount of \$225.00), Change of Correspondence Address (PTO/SB/122), and
Postcard Receipt, for Paul L. Master et al., Serial No. 09/997,530, entitled "Apparatus,
System and Method for Configuration of Adaptive Integrated Circuitry Having Fixed,
Application Specific Computational Elements", have been deposited in the United States
10 Mail, First Class postage prepaid, addressed to the Commissioner for Patents, P.O. Box
1450, Mail Stop Amendment, Alexandria, VA 22313-1450, on June 20, 2005.


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